

TITLE: MEANS AND METHODS FOR FIBROBLAST-LIKE OR  
MACROPHAGE-LIKE CELL TRANSDUCTION

Inventor: Vogels et al.

Serial No.: 09/517,898

Docket No.: 2578-3982.2US

312 Amdt. Dated February 23, 2004

Replacement Sheet

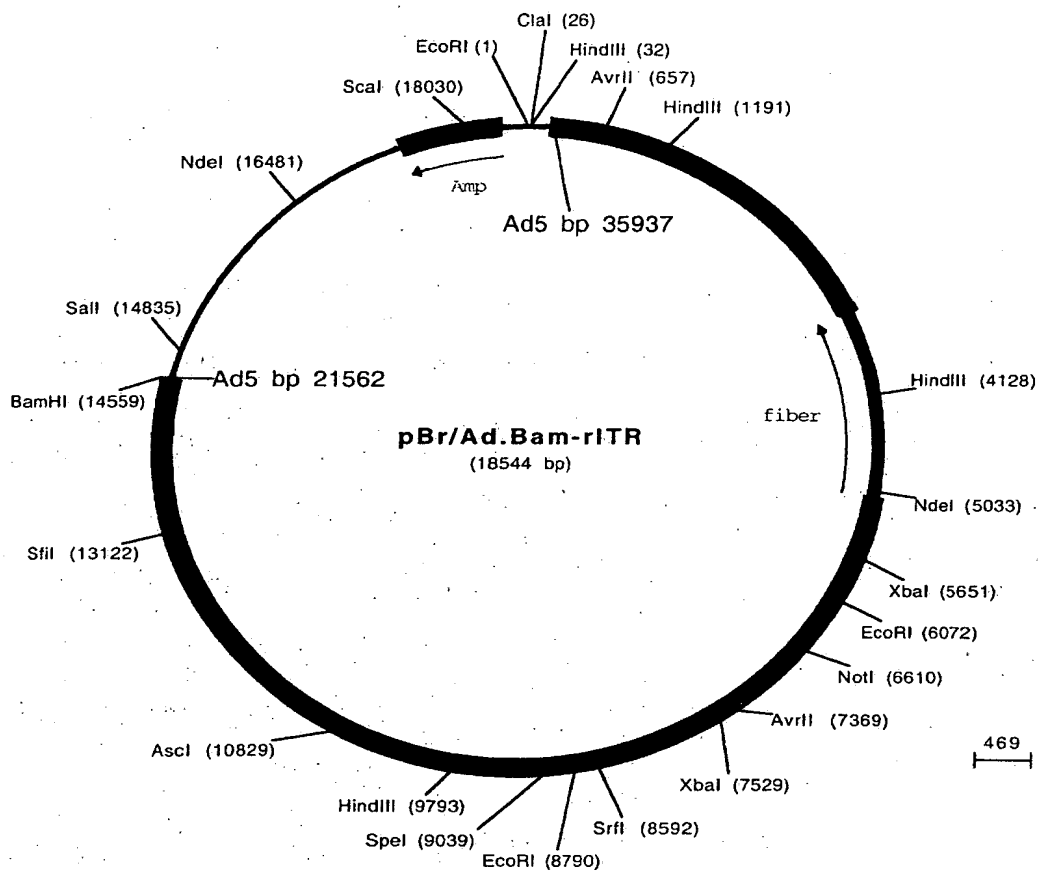


FIG. 1

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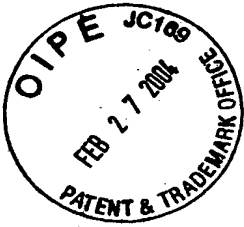
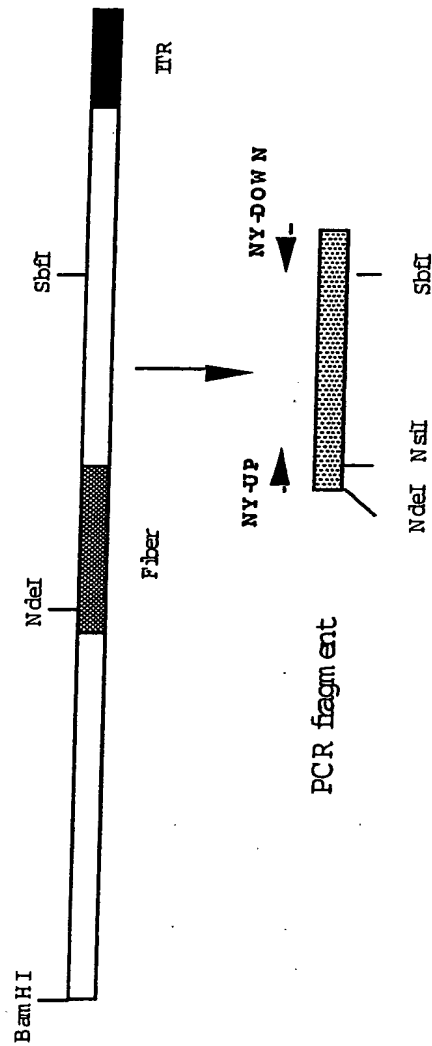
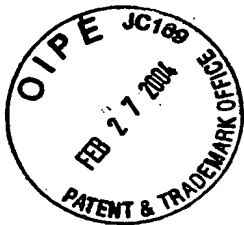


FIG. 2



NY-UP : 5'-CGA CATATG CATATG TAG ATG CAT TAG TTT GTG TTA TGT TTC AAC GTG-3' (SEQ ID NO:36)

NY-DOWN : 5'-GGA GAC CAC TGC CAT GTT G-3' (SEQ ID NO:37)



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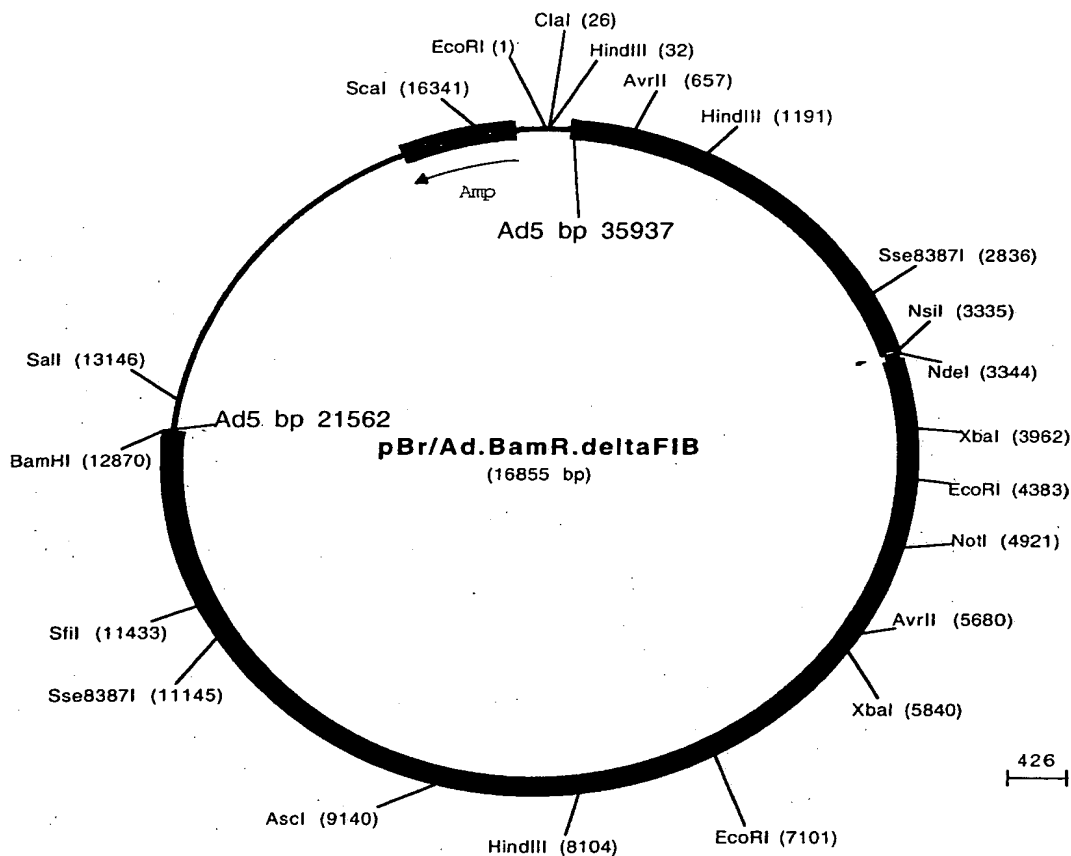
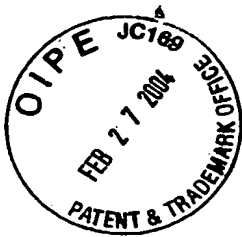


FIG. 3



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FIG. 4

ATGAAGCGCGAAGACCGTCTGAAGATACCTTCAACCCCGTGTATCCATATGAAGATGAAGCAGCT  
CACAAACACCCCTTTATAAACCCCTGGTTTCATTTCCCTCAATGGTTTTCACAAAGCCAGATGGAGT  
TCTAACTCTTAAATGTGTAAATCCACTCACTACCGCCAGCGGACCCCTCCAACTTAAAGTTGAAGC  
AGTCTTACAGTAGATACTATCGATGGGTCTTTGGAGGAAATATAACTGCCGAAGCGCCACTCACTA  
AACTAACCACTCCATAGGTTTATTAATAGGATCTGGCTTGCAAAACAAAGGATGATAAATCTTTGTTT  
ATCGCTGGGAGATGGGTTGGTAACAAAGGATGATAAATCTATGTTTATCGCTGGGAGATGGGTTAATA  
ACAAAAATGATGTACTATGTGCCAAACTAGGACATGGCCCTGTGTGACTCTTCCAAATGCTATCA  
CCATAGAAAAACAACACCTTGTGGACAGCGCAAAACCAAGCCCAACTGTGTAATTAAAGAGGGAGA  
AGATTCCCCAGACTGTAGCTCACTTTAGTTCTAGTGAAGATGGAGGACTGATAAATGGATACATA  
ACATTAATGGGAGCCTCAGAAATATACCTAACACCTTTGTTTAAACAAATCAAGTTACAATCGATGTA  
ACCTCGCATTTGATAATACTGGCCAAAATTATTAATTAATCACTATCATCCCTTAAAGTAACCTGAACTT  
TAAAGACAACCAAAACATGGCTACTGGAACCATACCACTGCCAAAGGCTTCATGCCCAGCACACC  
GCCTATCCATTTTATAACATAGCCCACTGAGACCCCTAAATGAAGATTACATTTATGGAGAGTGTACT  
ACAAATCTACCAATGGAACTCTCTTTCCACTAAAGTTACTGTACACACTAAACAGACGTAATGTAGC  
TTCTGGAATGGCCCTATGCTATGAATTTTTCATGGTCTCTAAATGCAGAGGAAGCCCCGGAACTACC  
GAAGTCACTCTCATACCTCCCCCTTCTTTTTTCTTATATATCAGAGAAGATGACTGAATGCATTAG

(SEQ ID NO:32)

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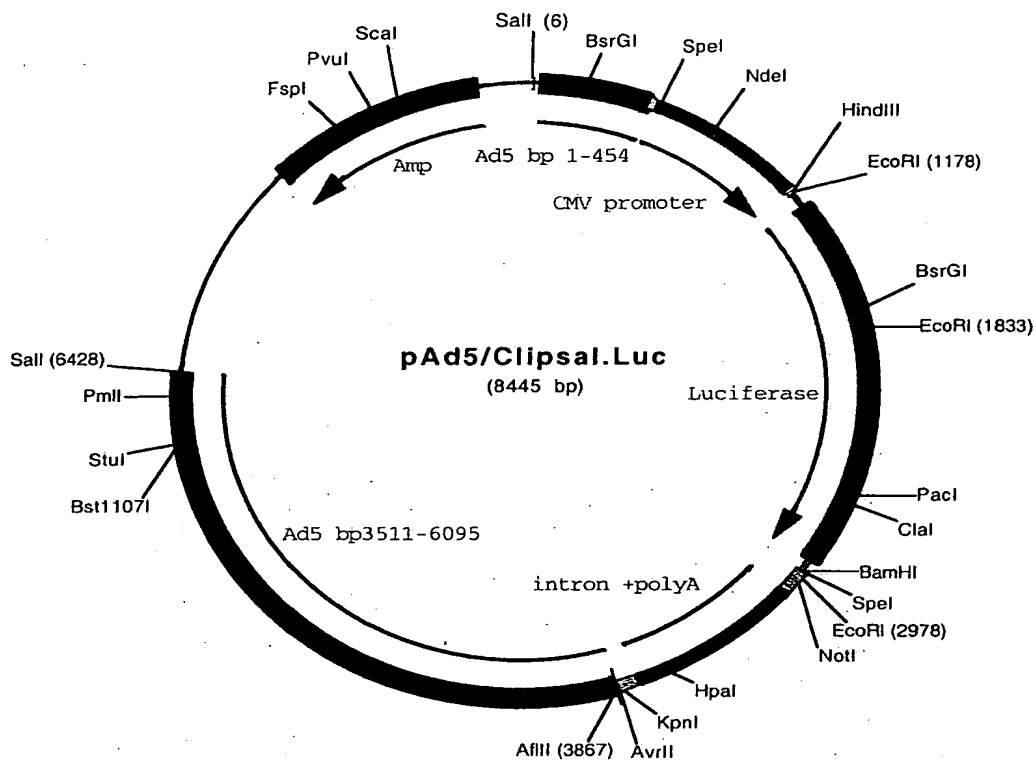
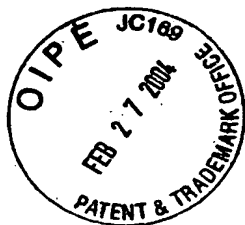
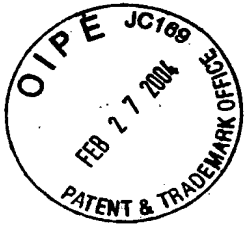


FIG. 5



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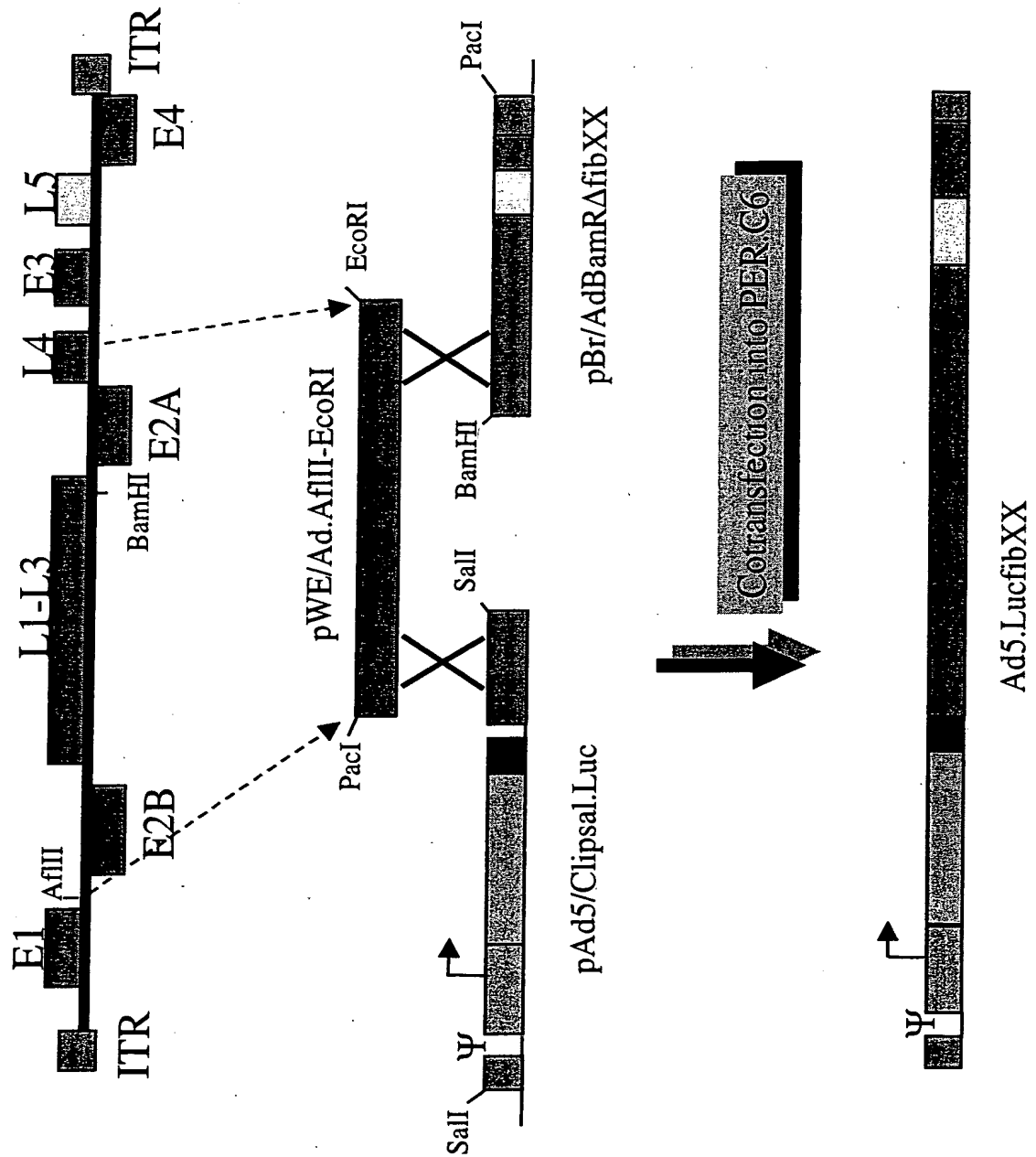
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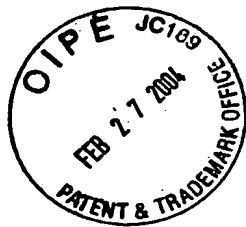
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FIG. 6







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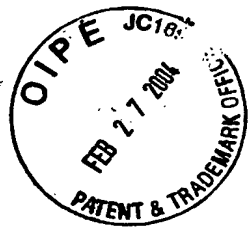
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FIG. 7B

600 CATAACATTAAATGGGAGCCCTCAGAAATATACTAACACCTTGTTTAAACAACA Fiber 16 Genbank  
600 CATAACATTAAATGGGAGCCCTCAGAAATATACTAACACCTTGTTTAAACAACA Ad5/16 Fiber DNA  
650 ATCAAAGTTACAATCGATGTAAACCTCGCATTTGATAAATACTGGCCAAAAT Fiber 16 Genbank  
650 ATCAAAGTTACAATCGATGTAAACCTCGCATTTGATAAATACTGGCCAAAAT Ad5/16 Fiber DNA  
700 ATTAACCTTACCTATCATCCCTTAAAGTAACCTGAACCTTAAAGACACAACA Fiber 16 Genbank  
700 ATTAACCTTACCTATCATCCCTTAAAGTAACCTGAACCTTAAAGACACAACA Ad5/16 Fiber DNA  
750 AAACATGGCTACTGGAAACCATAAACCACTGAGTGGCCAAAGGCTTCATGCCCAACA Fiber 16 Genbank  
750 AAACATGGCTACTGGAAACCATAAACCACTGAGTGGCCAAAGGCTTCATGCCCAACA Ad5/16 Fiber DNA  
800 CCACCGCCTATCCATTATTAACATACGACCTGAGACCCCTAAATGAAGAT Fiber 16 Genbank  
800 CCACCGCCTATCCATTATTAACATACGACCTGAGACCCCTAAATGAAGAT Ad5/16 Fiber DNA  
850 TACATTTATGGAGAGTGTTACTACAAATCTACCAATGGAACCTCTCTTCC Fiber 16 Genbank  
850 TACATTTATGGAGAGTGTTACTACAAATCTACCAATGGAACCTCTCTTCC Ad5/16 Fiber DNA  
900 ACTAAAAGTTACTGTCACACTAAACAGACGTTAGTTAGCTTCTGGAAATGG Fiber 16 Genbank  
900 ACTAAAAGTTACTGTCACACTAAACAGACGTTAGTTAGCTTCTGGAAATGG Ad5/16 Fiber DNA  
950 CCTATGCTATGAAATTTTCAATGGTCTCTAAATGCAGAGGAAAGCCCGGAA Fiber 16 Genbank  
950 CCTATGCTATGAAATTTTCAATGGTCTCTAAATGCAGAGGAAAGCCCGGAA Ad5/16 Fiber DNA  
1000 ACTACCGAAGTCACTCTCAATACCTCCCTCTCTTTTCTTATATCAG Fiber 16 Genbank  
1000 ACTACCGAAGTCACTCTCAATACCTCCCTCTCTTTTCTTATATCAG Ad5/16 Fiber DNA  
1050 AGAAGATGACTGA  
1050 AGAAGATGACTGAATGCATTAGTTTGTGTTATGTTTCAACGTGTTTATTT Fiber 16 Genbank  
1050 AGAAGATGACTGAATGCATTAGTTTGTGTTATGTTTCAACGTGTTTATTT Ad5/16 Fiber DNA  
1062  
1100 TCAATTG  
Fiber 16 Genbank  
Ad5/16 Fiber DNA

Decoration 'Decoration #1': Box residues that differ from Fiber 16 Genbank.





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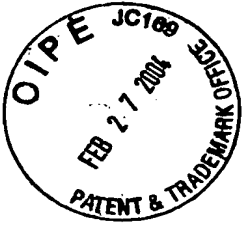
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FIG. 7C

Alignment Report of alignment.prot, using Clustal method with PAM250 residue weight table.  
Wednesday, March 31, 1999 16:19

1	M	A	K	R	A	R	L	S	S	-	S	F	N	P	V	Y	P	Y	E	D	E	S	S	S	Q	H	P	F	I	N	g	e	n	b	a	n	k	F	i	b	e	r	1	6	(SEQ ID NO:35)			
1	M	K	R	A	R	L	S	S	E	D	T	F	N	P	V	Y	P	Y	E	D	E	S	S	S	Q	H	P	F	I	N	c	h	i	m	e	r	i	c	A	d	5	/	F	i	b	1	6	(SEQ ID NO:34)
30	P	G	F	I	S	S	N	G	F	A	Q	S	P	D	G	V	L	T	L	K	C	V	N	P	L	T	T	A	S	G	g	e	n	b	a	n	k	F	i	b	e	r	1	6				
30	P	G	F	I	S	S	N	G	F	A	Q	S	P	D	G	V	L	T	L	K	C	V	N	P	L	T	T	A	S	G	c	h	i	m	e	r	i	c	A	d	5	/	F	i	b	1	6	
60	P	L	Q	L	K	V	G	S	S	L	T	V	D	T	I	D	G	S	L	E	E	N	I	T	A	A	A	P	L	T	g	e	n	b	a	n	k	F	i	b	e	r	1	6				
60	P	L	Q	L	K	V	G	S	S	L	T	V	D	T	I	D	G	S	L	E	E	N	I	T	A	A	A	P	L	T	c	h	i	m	e	r	i	c	A	d	5	/	F	i	b	1	6	
90	K	T	N	H	S	I	G	L	L	I	G	S	G	L	Q	T	K	D	D	K	L	C	L	S	L	G	D	G	L	V	g	e	n	b	a	n	k	F	i	b	e	r	1	6				
90	K	T	N	H	S	I	G	L	L	I	G	S	G	L	Q	T	K	D	D	K	L	C	L	S	L	G	D	G	L	V	c	h	i	m	e	r	i	c	A	d	5	/	F	i	b	1	6	
120	T	K	D	D	K	L	C	L	S	L	G	D	G	L	I	T	K	N	D	V	L	C	A	K	L	G	H	G	L	V	g	e	n	b	a	n	k	F	i	b	e	r	1	6				
120	T	K	D	D	K	L	C	L	S	L	G	D	G	L	I	T	K	N	D	V	L	C	A	K	L	G	H	G	L	V	c	h	i	m	e	r	i	c	A	d	5	/	F	i	b	1	6	
150	F	D	S	S	N	A	I	T	I	E	N	N	T	L	W	T	G	A	K	P	S	A	N	C	V	I	K	E	G	E	g	e	n	b	a	n	k	F	i	b	e	r	1	6				
150	F	D	S	S	N	A	I	T	I	E	N	N	T	L	W	T	G	A	K	P	S	A	N	C	V	I	K	E	G	E	c	h	i	m	e	r	i	c	A	d	5	/	F	i	b	1	6	
180	D	S	P	D	C	K	L	T	L	V	L	V	K	N	G	G	L	I	N	G	Y	I	T	L	M	G	A	S	E	Y	g	e	n	b	a	n	k	F	i	b	e	r	1	6				
180	D	S	P	D	C	K	L	T	L	V	L	V	K	N	G	G	L	I	N	G	Y	I	T	L	M	G	A	S	E	Y	c	h	i	m	e	r	i	c	A	d	5	/	F	i	b	1	6	
210	T	N	T	L	F	K	N	N	Q	V	T	I	D	V	N	L	A	F	D	N	T	G	Q	I	I	T	Y	L	S	S	g	e	n	b	a	n	k	F	i	b	e	r	1	6				
210	T	N	T	L	F	K	N	N	Q	V	T	I	D	V	N	L	A	F	D	N	T	G	Q	I	I	T	Y	L	S	S	c	h	i	m	e	r	i	c	A	d	5	/	F	i	b	1	6	
240	L	K	S	N	L	N	F	K	D	N	Q	N	M	A	T	G	T	I	T	S	A	K	G	F	M	P	S	T	T	A	g	e	n	b	a	n	k	F	i	b	e	r	1	6				
240	L	K	S	N	L	N	F	K	D	N	Q	N	M	A	T	G	T	I	T	S	A	K	G	F	M	P	S	T	T	A	c	h	i	m	e	r	i	c	A	d	5	/	F	i	b	1	6	
270	Y	P	F	I	T	Y	A	T	E	T	L	N	E	D	Y	I	Y	G	E	C	Y	Y	K	S	T	N	G	T	L	F	g	e	n	b	a	n	k	F	i	b	e	r	1	6				
270	Y	P	F	I	T	Y	A	T	E	T	L	N	E	D	Y	I	Y	G	E	C	Y	Y	K	S	T	N	G	T	L	F	c	h	i	m	e	r	i	c	A	d	5	/	F	i	b	1	6	
300	P	L	K	V	T	V	T	L	N	R	R	M	L	A	S	G	M	A	Y	A	M	N	F	S	W	S	L	N	A	E	g	e	n	b	a	n	k	F	i	b	e	r	1	6				
300	P	L	K	V	T	V	T	L	N	R	R	M	L	A	S	G	M	A	Y	A	M	N	F	S	W	S	L	N	A	E	c	h	i	m	e	r	i	c	A	d	5	/	F	i	b	1	6	
330	E	A	P	E	T	T	E	V	T	L	I	T	S	P	F	F	F	S	Y	I	R	E	D	D						g	e	n	b	a	n	k	F	i	b	e	r	1	6					
330	E	A	P	E	T	T	E	V	T	L	I	T	S	P	F	F	F	S	Y	I	R	E	D	D						c	h	i	m	e	r	i	c	A	d	5	/	F	i	b	1	6		

Decoration #1: Box residues that differ from genbank Fiber 16 .



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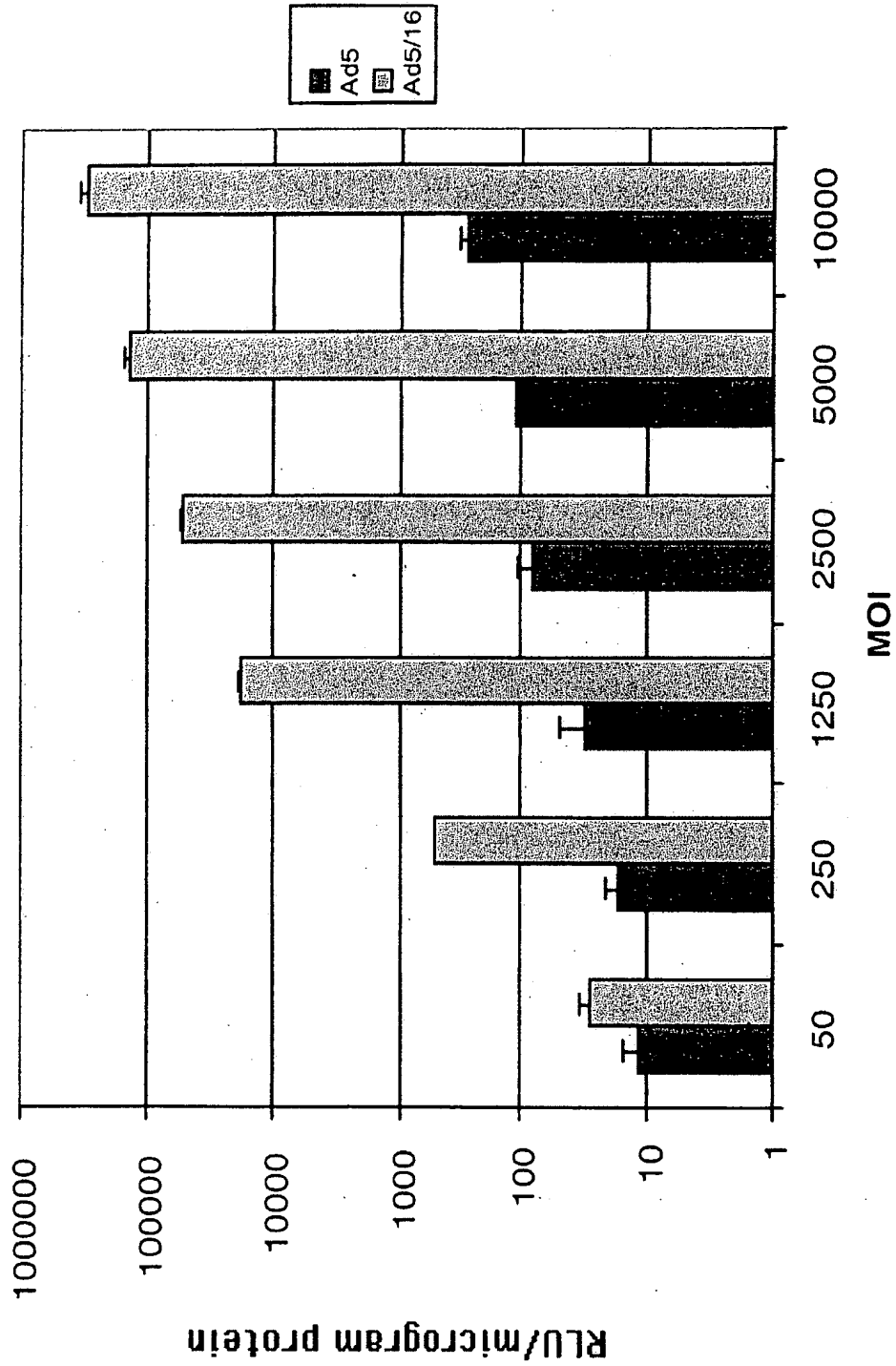
Inventor: Vogels et al.

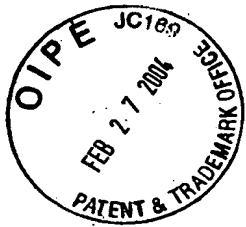
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312 Amdt. Dated February 23, 2004

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FIG. 8





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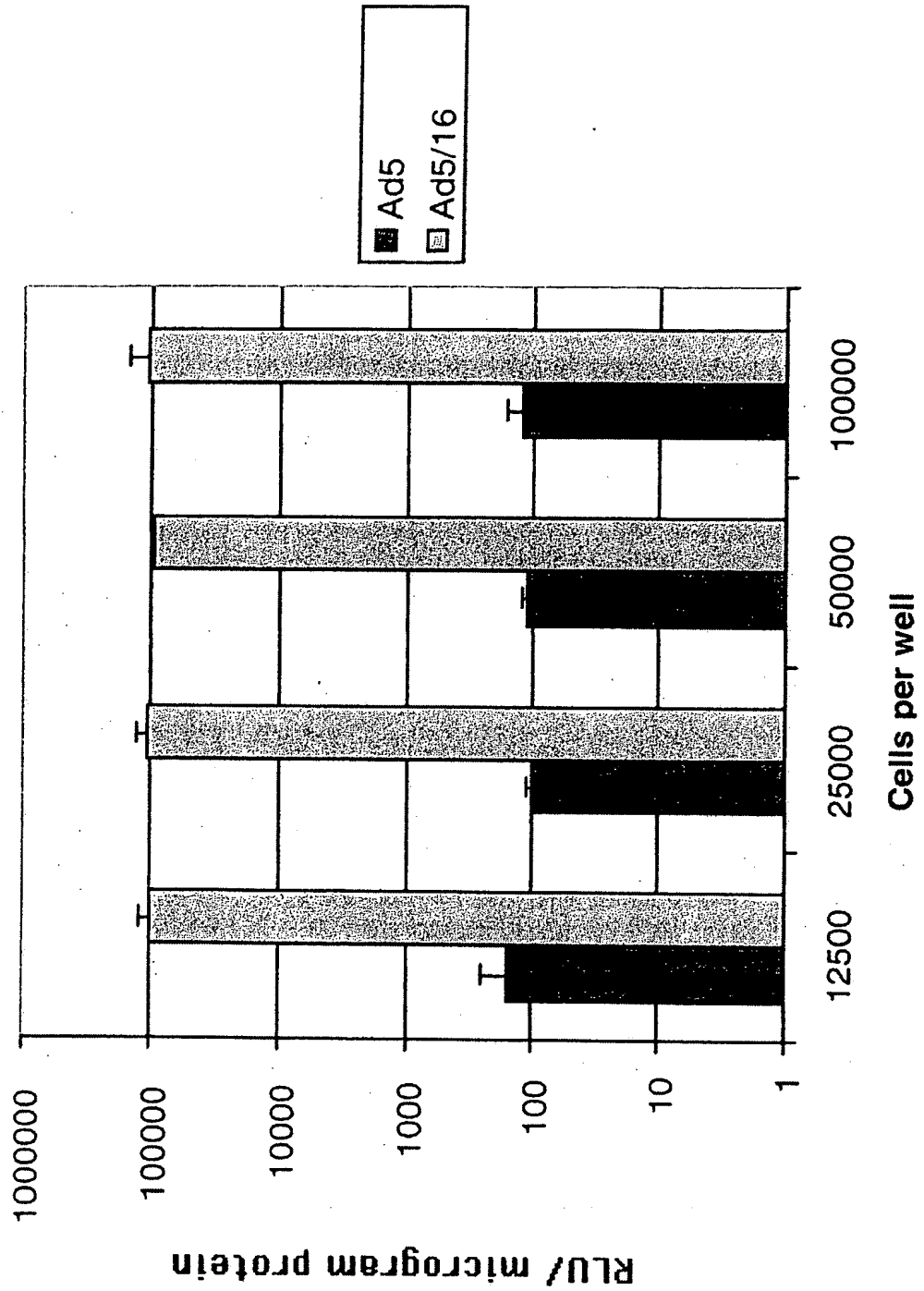
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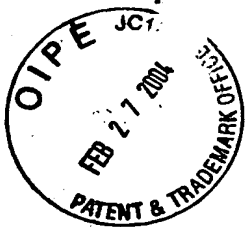
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312 Amdt. Dated February 23, 2004

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FIG. 9





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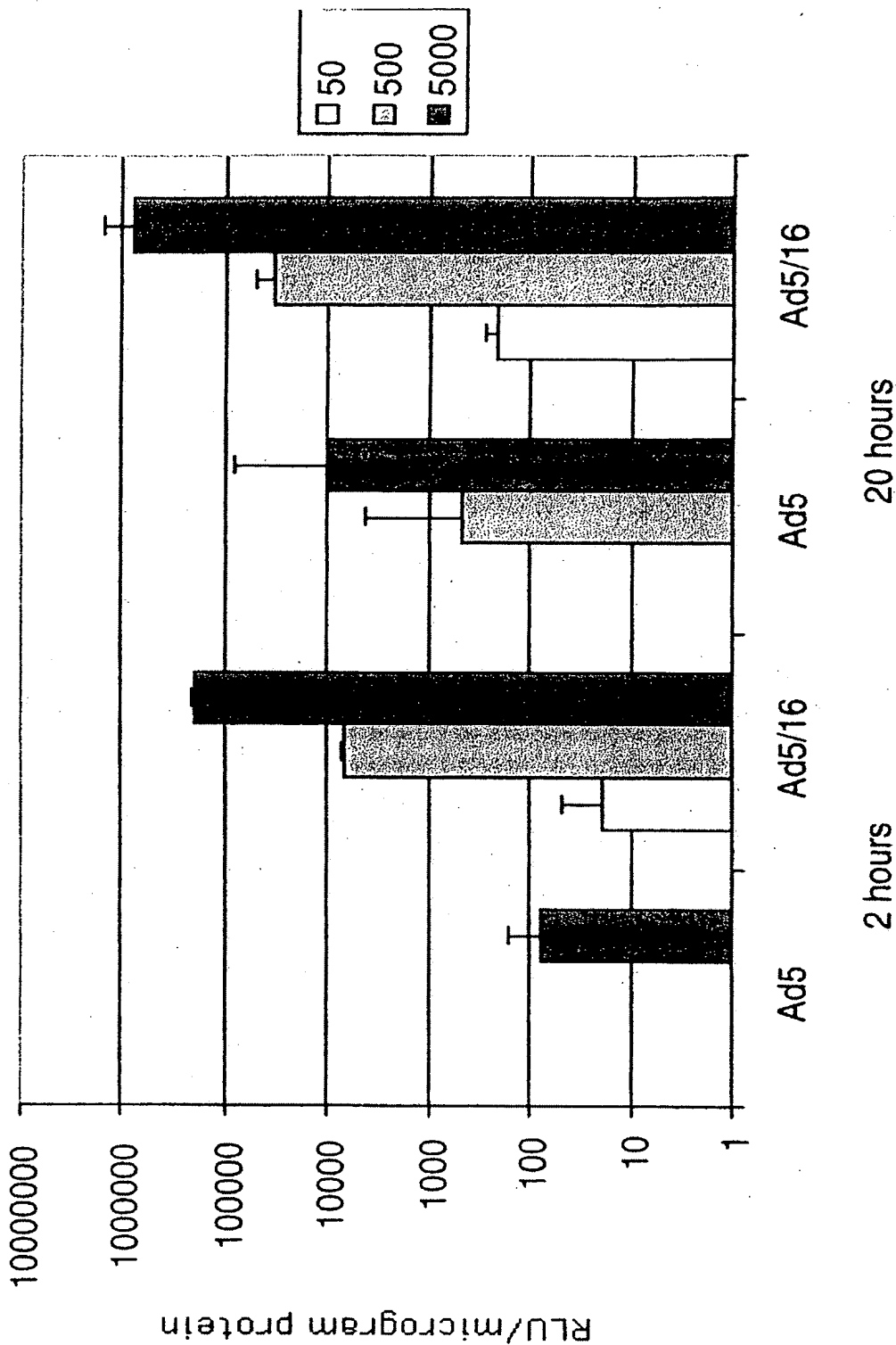
Inventor: Vogels et al.

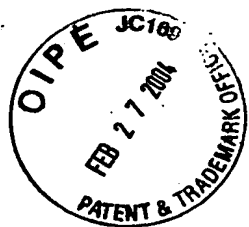
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312 Amdt. Dated February 23, 2004

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FIG. 10





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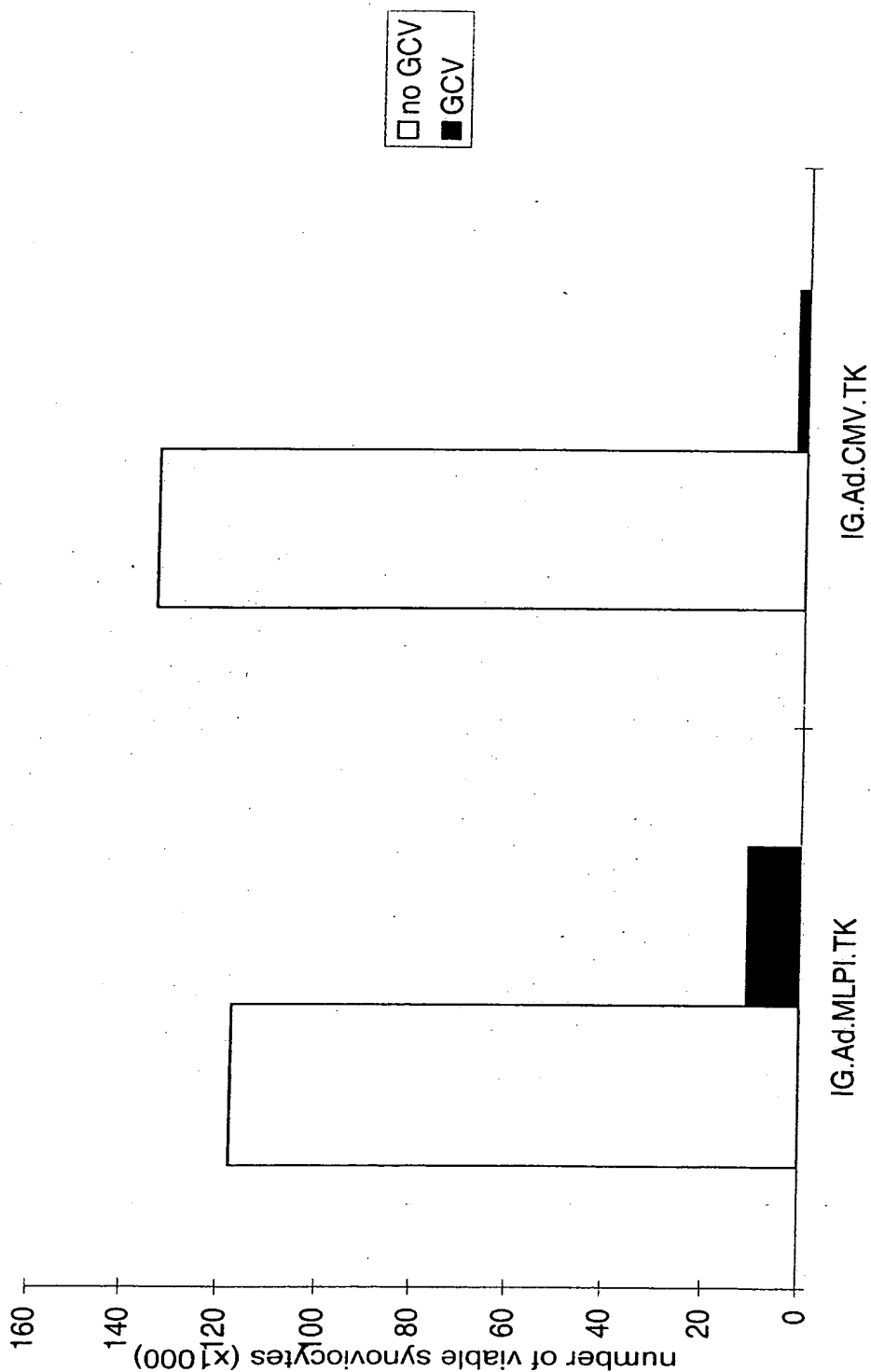
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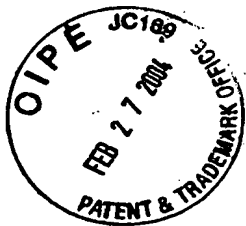
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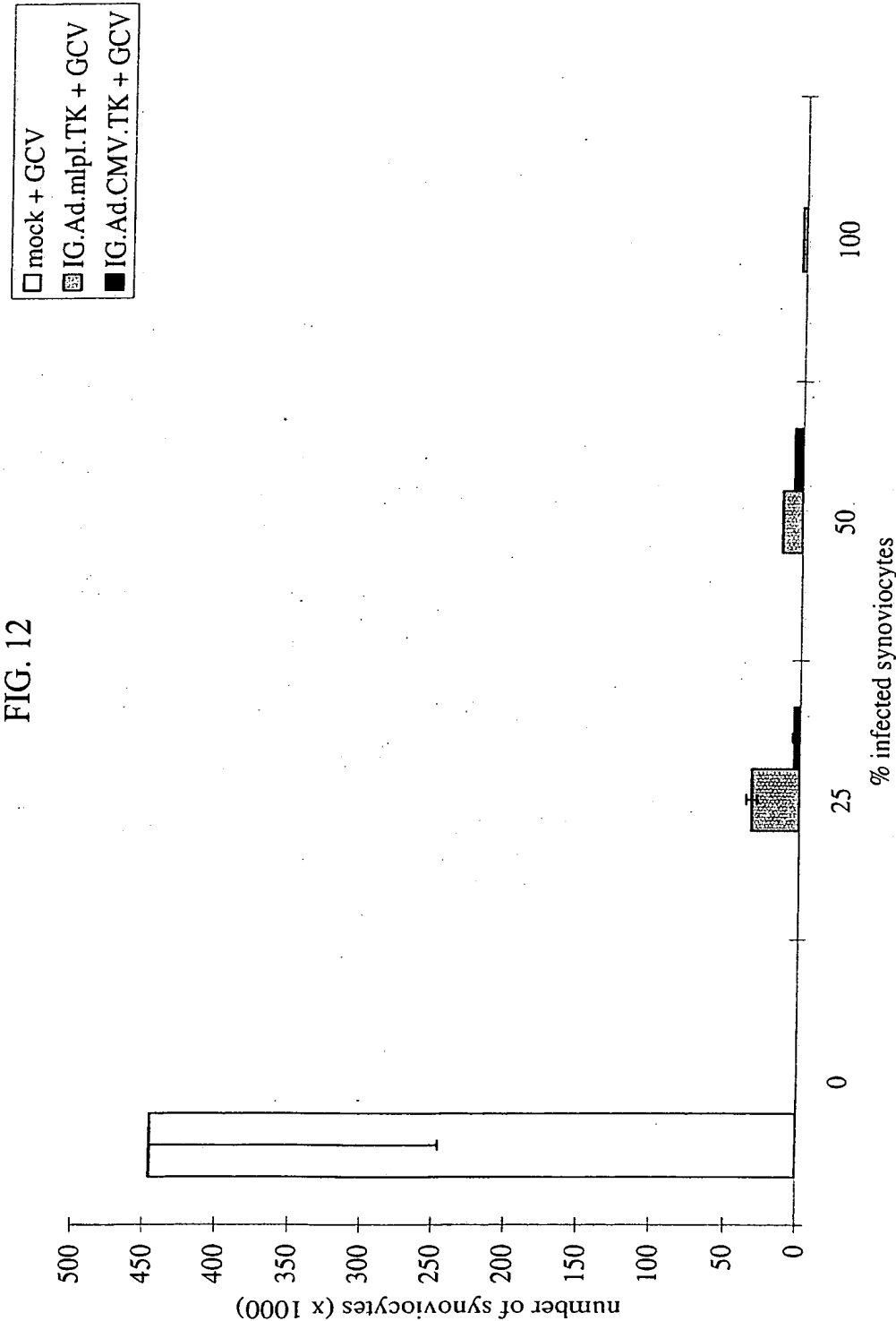
FIG. 11

Synoviocytes infected with Ad.TK





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**Replacement Sheet**



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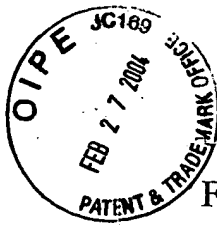


FIG. 13A

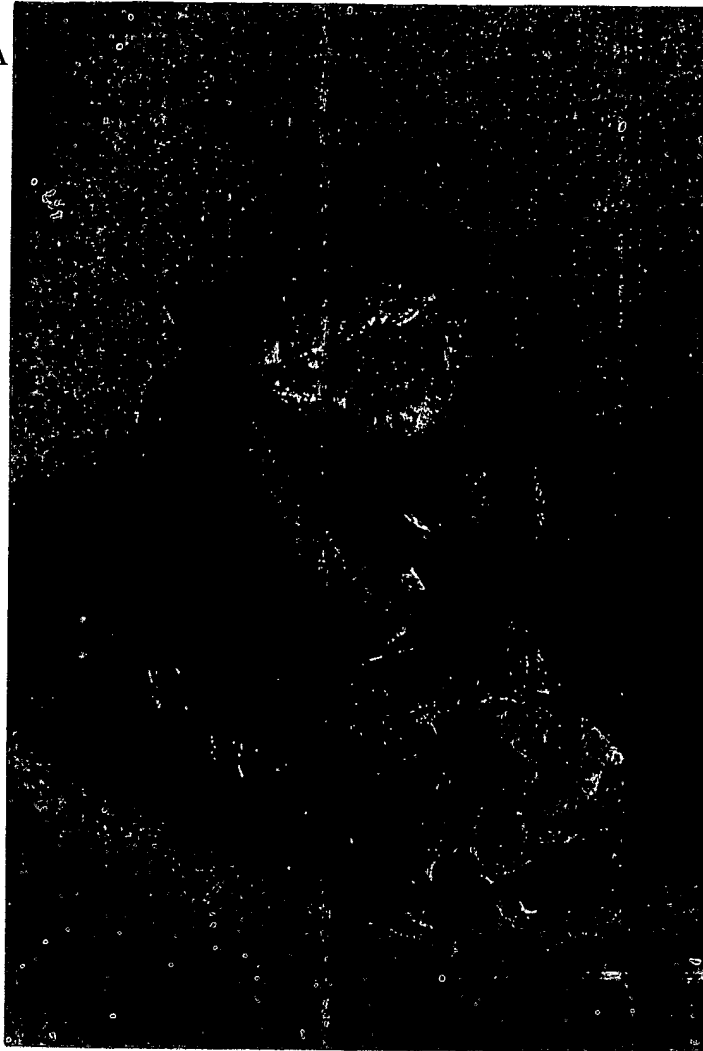
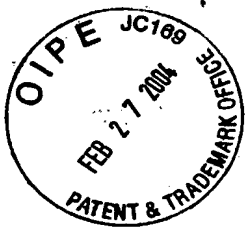


FIG. 13B





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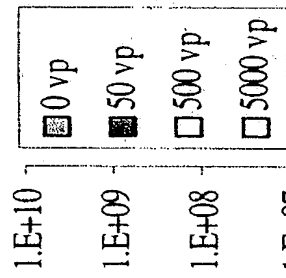
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Docket No.: 2578-3982.2US

312 Amdt. Dated February 23, 2004

Replacement Sheet

FIG. 14

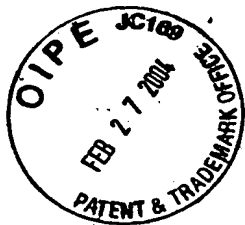


1.E+10  
1.E+09  
1.E+08  
1.E+07  
1.E+06  
1.E+05  
1.E+04  
1.E+03  
1.E+02  
1.E+01  
1.E+00

Fig 5

Fig 16





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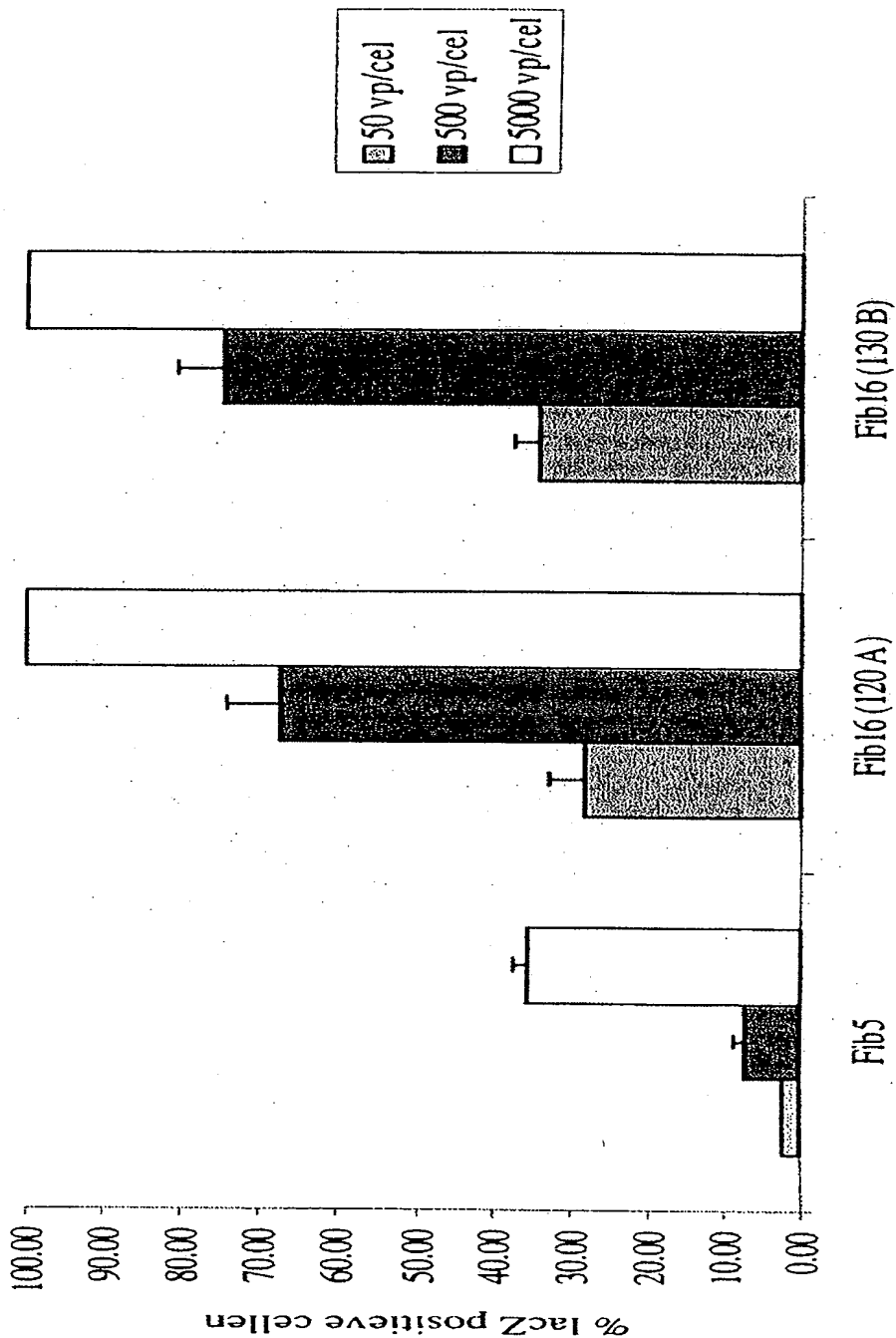
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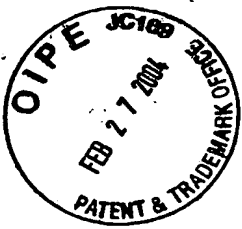
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312 Amdt. Dated February 23, 2004

Replacement Sheet

FIG. 15





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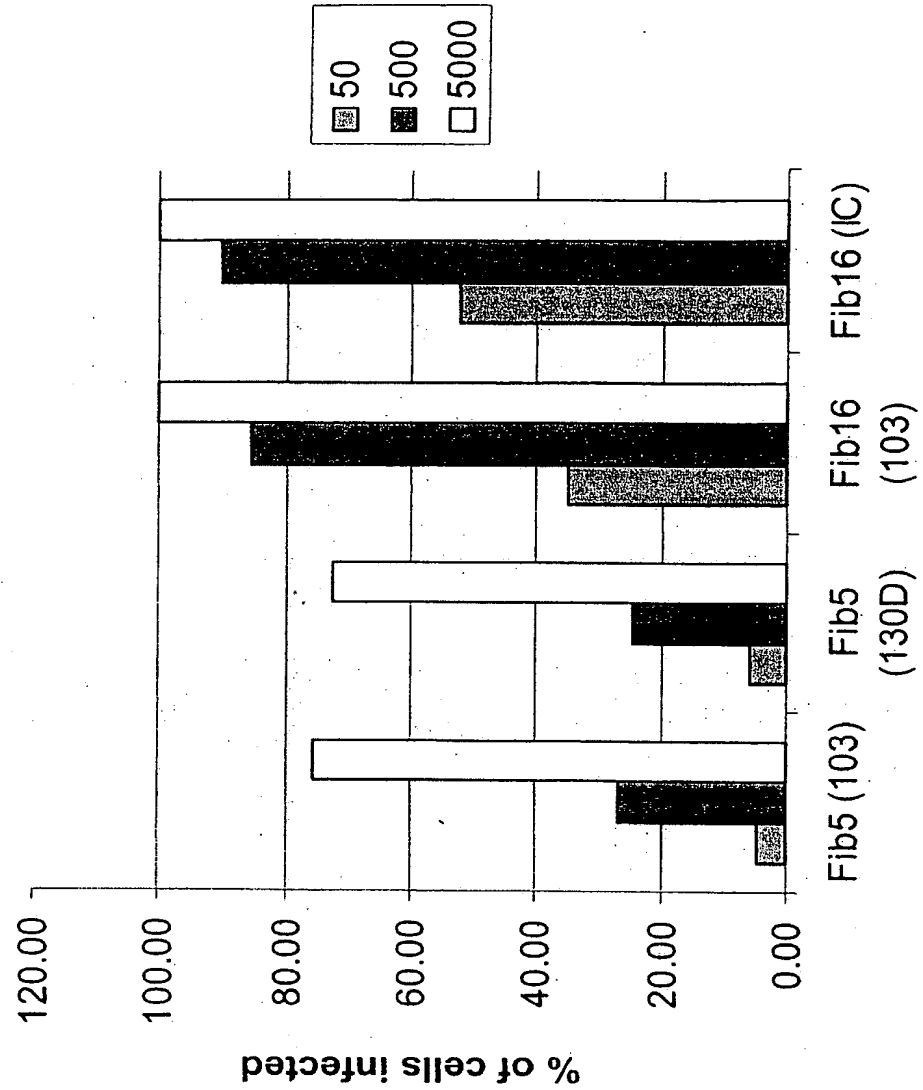
Inventor: Vogels et al.

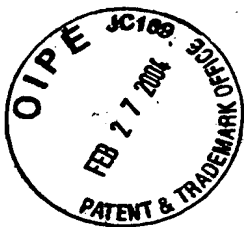
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312 Amdt. Dated February 23, 2004

Replacement Sheet

FIG. 16A





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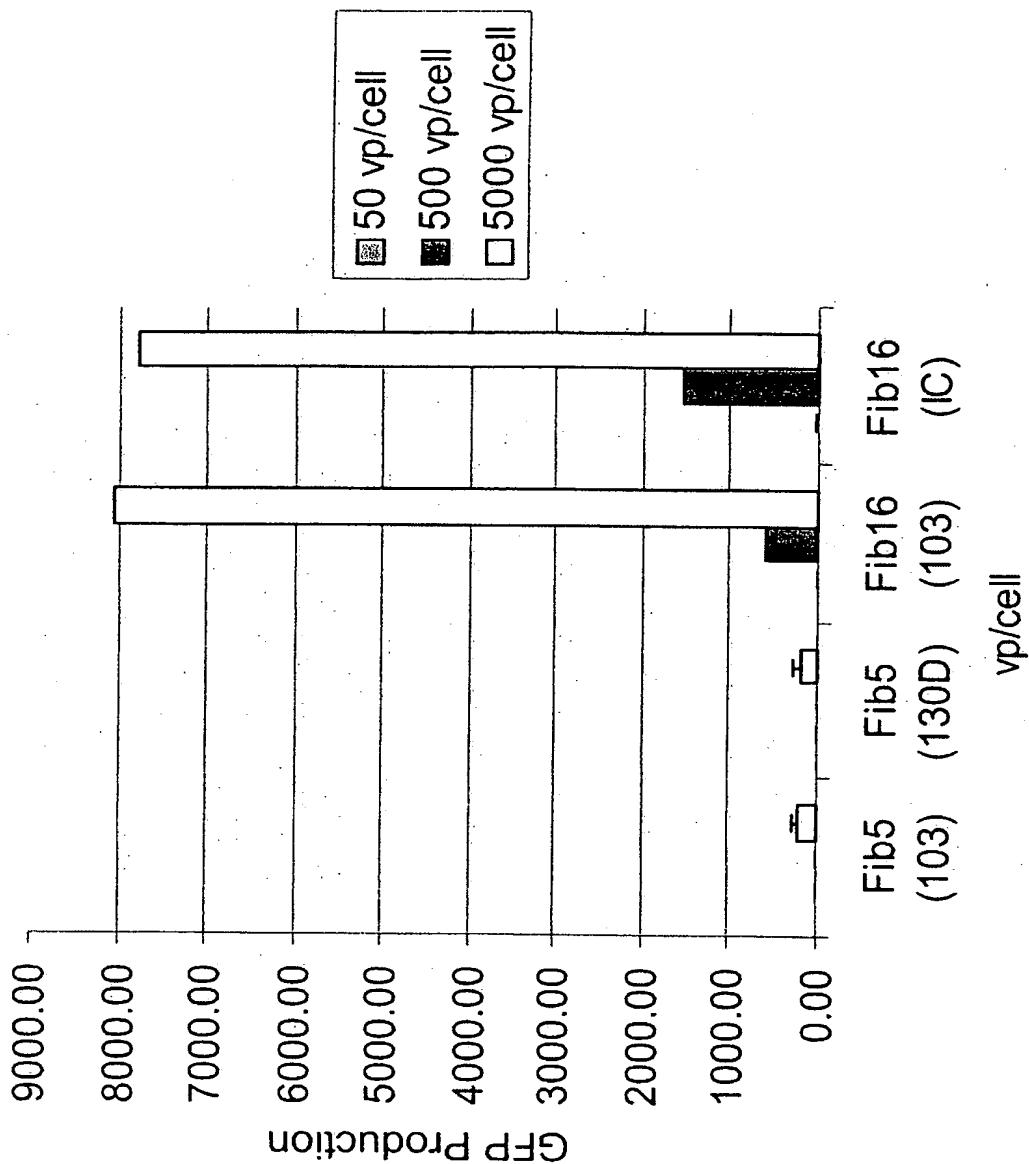
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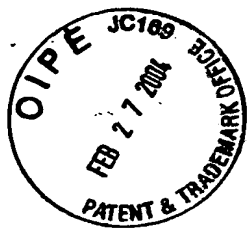
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312 Amdt. Dated February 23, 2004

Replacement Sheet

FIG. 16B





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MACROPHAGE-LIKE CELL TRANSDUCTION

Inventor: Vogels et al.

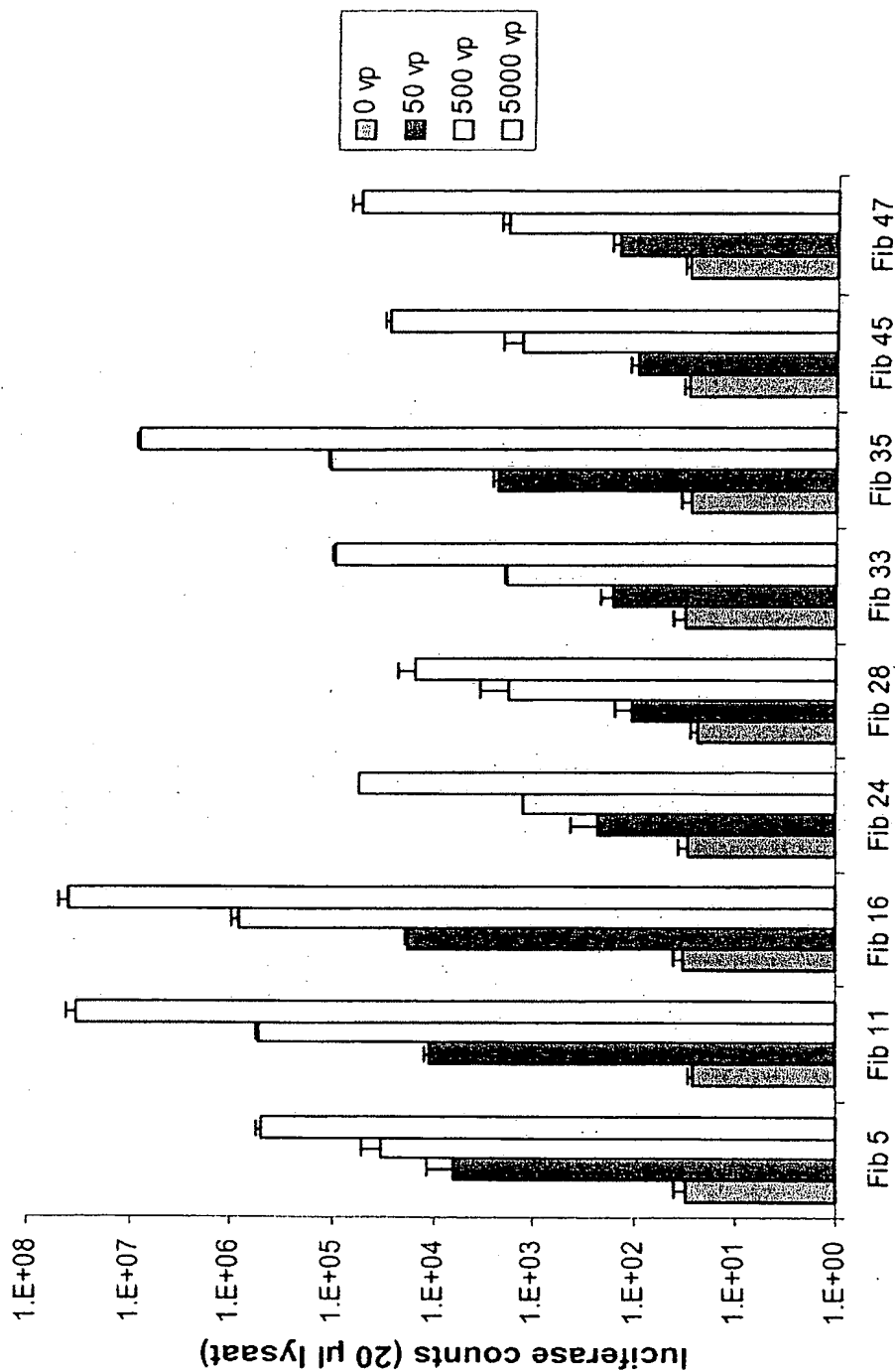
Serial No.: 09/517,898

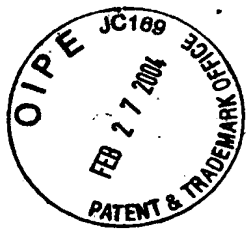
Docket No.: 2578-3982.2US

312 Amdt. Dated February 23, 2004

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FIG. 17





TITLE: MEANS AND METHODS FOR FIBROBLAST-LIKE OR  
MACROPHAGE-LIKE CELL TRANSDUCTION

Inventor: Vogels et al.

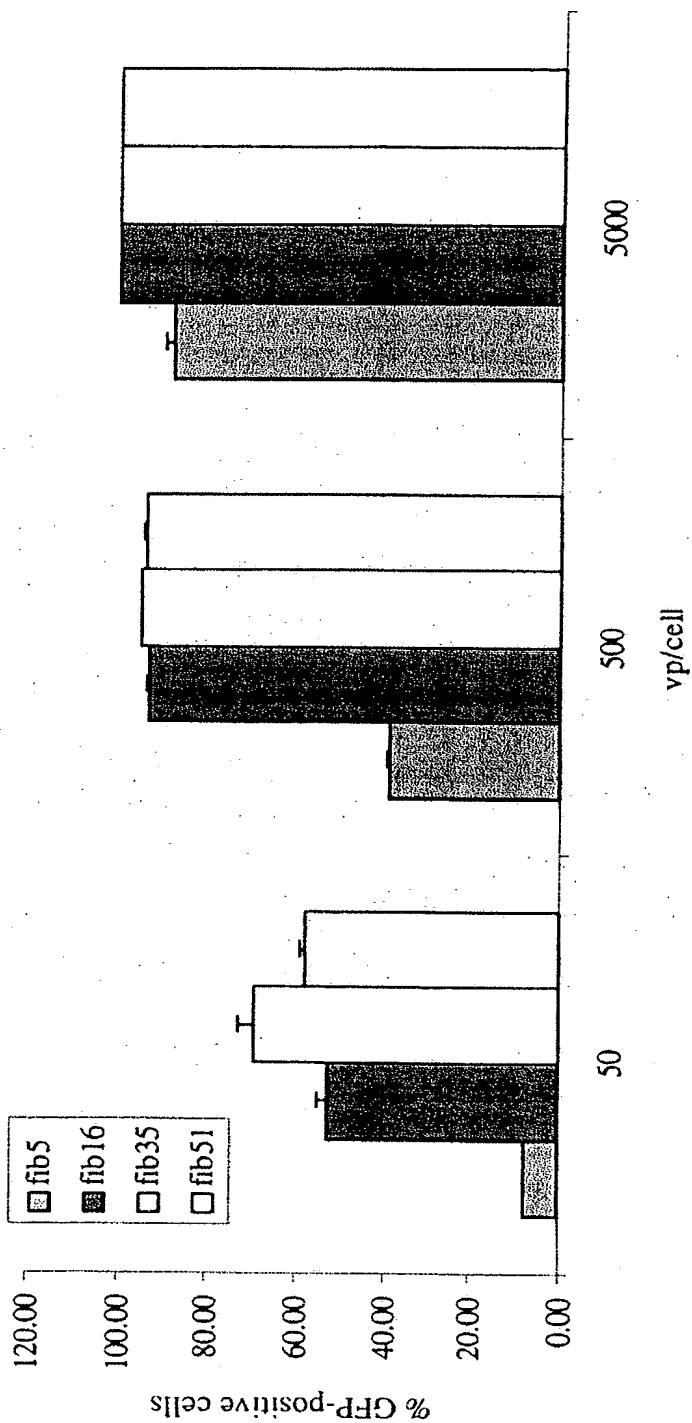
Serial No.: 09/517,898

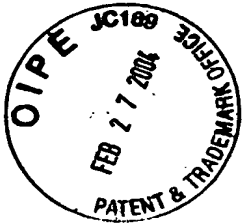
Docket No.: 2578-3982.2US

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FIG. 18A





TITLE: MEANS AND METHODS FOR FIBROBLAST-LIKE OR  
MACROPHAGE-LIKE CELL TRANSDUCTION

Inventor: Vogels et al.

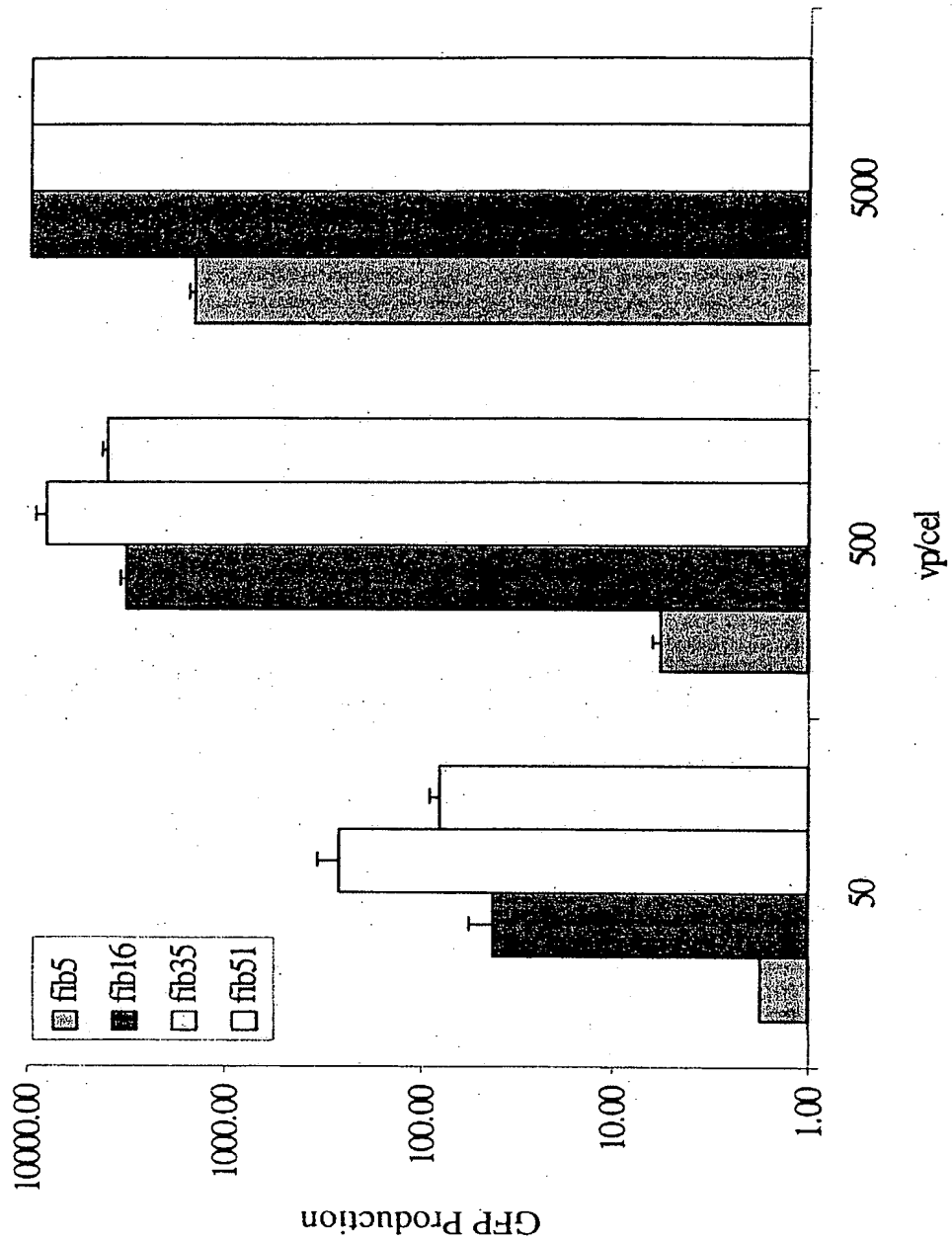
Serial No.: 09/517,898

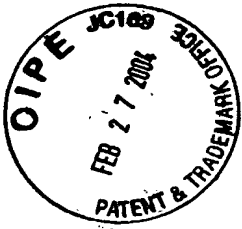
Docket No.: 2578-3982.2US

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FIG. 18B





TITLE: MEANS AND METHODS FOR FIBROBLAST-LIKE OR  
MACROPHAGE-LIKE CELL TRANSDUCTION

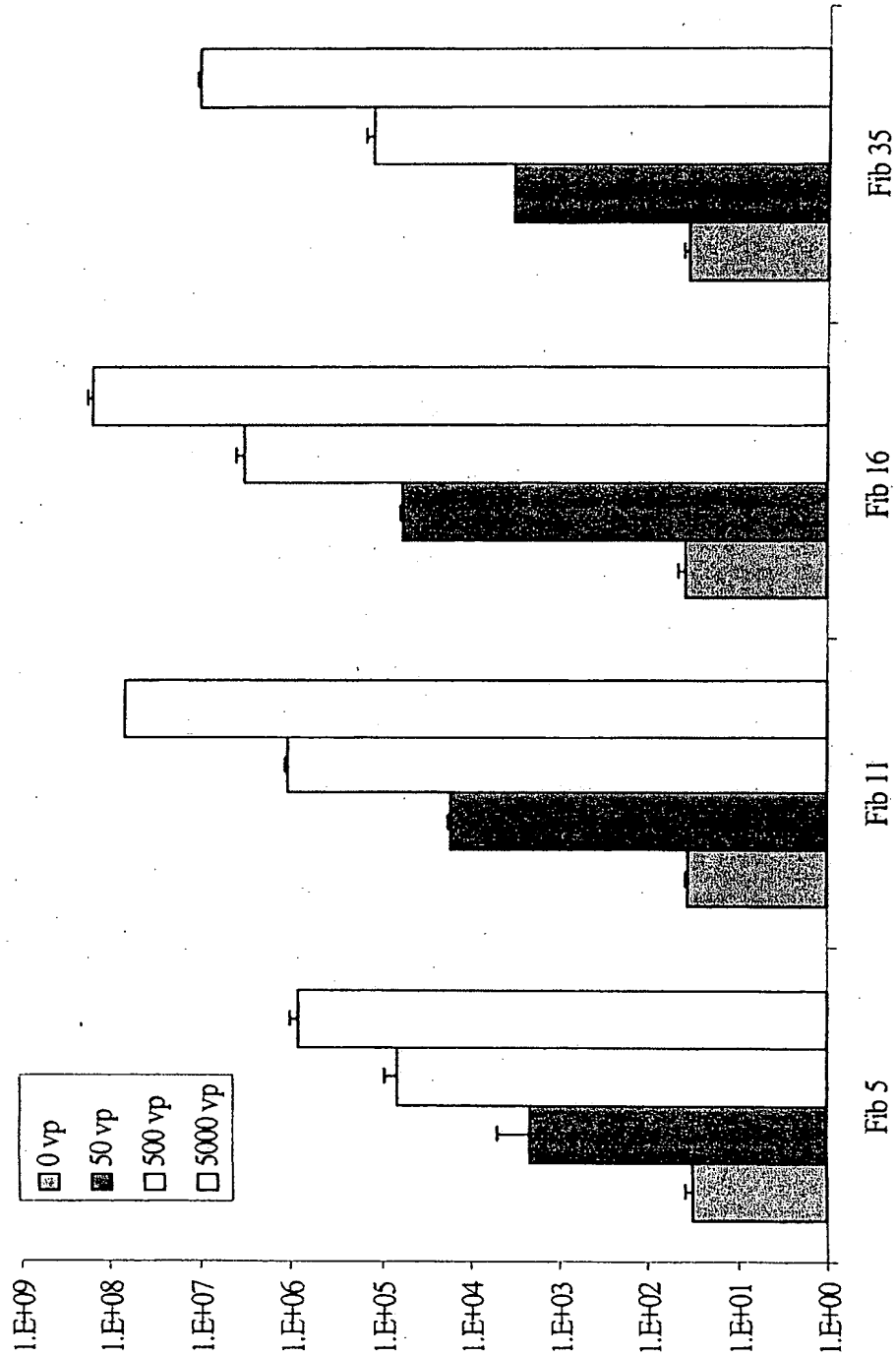
Inventor: Vogels et al.

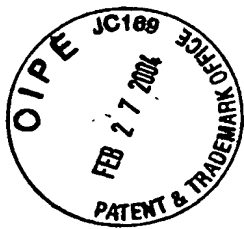
Serial No.: 09/517,898      Docket No.: 2578-3982.2US

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FIG. 19





TITLE: MEANS AND METHODS FOR FIBROBLAST-LIKE OR  
MACROPHAGE-LIKE CELL TRANSDUCTION

Inventor: Vogels et al.

Serial No.: 09/517,898

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FIG. 20

